

ABSTRACT

A method and apparatus for detecting spectral properties of a sample are
5 disclosed. Electromagnetic radiation in the Terahertz range emitted from a first
laser source is modulated and combined with electromagnetic radiation emitted
from a second laser source. The frequency spectrum of the combined signal
comprises sidebands which can be tuned to resonate with the frequency
spectrum of the sample. Tuning of the sidebands is obtained by tuning the first
10 laser source, the second laser source, or the modulation frequency.